

Claims

1. Power distributed 2-range transmission comprising one frictional wheel variator (1), one planetary gear (2) arranged coaxially to said frictional wheel variator (1) and detachably connectable therewith via one shifting element (K2) and which comprises two shifting elements (Kr, K1) and one lateral shaft (9) which connects said frictional wheel variator (1) with said planetary gear (2), characterized in that said planetary gear (2) contains two minus planetary gear sets (3, 4).

2. Power distributed 2-range transmission according to claim 1, characterized in that as frictional wheel variator a one-way frictional wheel variator is provided.

3. Power distributed 2-range transmission according to claim 1 or 2, characterized in that in a first, lower range the input power is passed by said input shaft via said frictional wheel variator (1), said lateral shaft (9) and said planetary gear (2) to the output shaft (8), one part of the input power in the second power range being passed by the input shaft (15) to one element (5) of said planetary gear (2) and one other part of the input power being passed via said frictional wheel variator (1) and said lateral wall(9) to one other element (6) of said planetary gear (2).

4. Power distributed 2-range transmission according to claim 3, characterized in that in the first power range the input power is passed via said frictional wheel variator (1), said lateral shaft (9), said sun gear (6) and said ring gear (7) of said first minus planetary gear set (3) of said planetary gear (2) to said output shaft (8) and that in the second power range one part of the input power is passed directly to the web (5) of said first minus planetary gear set (3) of said planetary gear (2), the second part of the input power being passed via said frictional wheel variator (1) and said lateral shaft (9) to said sun gear (6) of said first minus planetary gear set (3).

5. Power distributed 2-range transmission according to any one of the preceding claims, characterized in that said lateral shaft (9) is connected with said planetary gear (2) via a ratio reduction step (10).

6. Power distributed 2-range transmission according to any one of the preceding claims, characterized in that said shifting element (K1) produces in closed state a block operation of said planetary gear (2) for the first power range and that said clutch (K2) makes possible in closed state in the second power range a direct connection of said input shaft (15) with said planetary gear (2).

7. Power distributed 2-range transmission according to any one of the preceding claims, characterized in that said web (5) of said first minus planetary gear set (3) can be detachably connected via said brake (Kr) with said housing (G), that said sun gear (6') of said second minus planetary gear set (4) can be detachably connected with said housing (G) via said brake (K1), that said ring gear (7') of said second minus planetary gear set (4) is connected with said web (5) of said first minus planetary gear set (3) and that said web (5') of said second minus planetary gear set (4) is connected with said ring gear (7) of said first minus planetary gear set (3) and of said output shaft (8).

8. Power distributed 2-range transmission according to any one of the preceding claims, characterized in that one Ravigneaux planetary gear set can be substituted for said minus planetary gear set (3, 4).